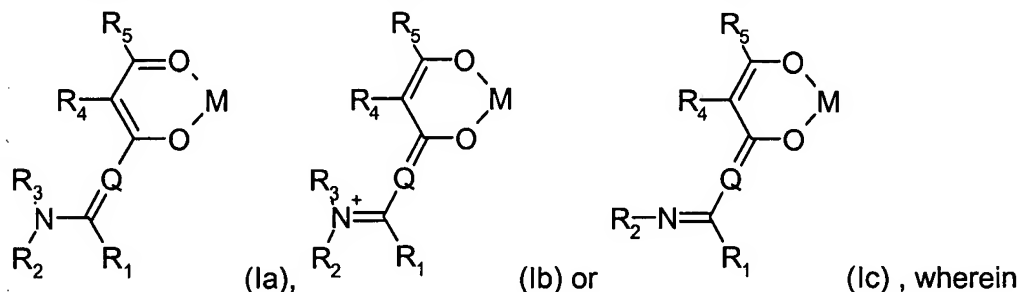


In the claims:

1.(currently amended) An optical recording medium comprising a substrate, a recording layer and optionally a reflecting layer, wherein the recording layer comprises a compound of formula



M is hydrogen, aluminium or, preferably, a transition metal, which may in addition be coordinated with one or more further ligands and/or, for balancing out an excess charge, where applicable, may have an electrostatic interaction with one or more further ions inside or outside the coordination sphere, but M in formulae (lb) and (lc) is not hydrogen,

Q is C--H, N or C--R₆, it being possible for the stereochemistry of the C=Q double bond to be either E or Z,

R₁ is hydrogen, OR₇, SR₇, NHR₇, NR₇R₈, C₁-C₁₂alkyl, C₂-C₁₂alkenyl, C₂-C₁₂alkynyl, C₃-C₁₂cycloalkyl, C₃-C₁₂cycloalkenyl, C₇-C₁₂aralkyl, C₂-C₁₁heteroaralkyl, C₆-C₁₀aryl or C₁-C₉heteroaryl,

R₂ and R₃ are each independently of the other C₁-C₁₂alkyl, C₂-C₁₂alkenyl, C₂-C₁₂alkynyl, C₃-C₁₂cycloalkyl, C₃-C₁₂cycloalkenyl, C₇-C₁₂aralkyl, C₂-C₁₁heteroaralkyl, C₆-C₁₀aryl or C₁-C₉heteroaryl,

R₄ is cyano, COR₉, COOR₇, CONH₂, CONHR₇, CONR₇R₈, C₂-C₁₂alk-1-enyl, C₃-C₁₂cycloalk-1-enyl, with C₂-C₁₂alk-1-ynyl, C₂-C₅heterocycloalkyl, C₃-C₅heterocycloalkenyl, C₆-C₁₀aryl or C₁-C₉heteroaryl, have

R₅ is cyano, COR₇, COOR₇, CONH₂, CONHR₇, CONR₇R₈, NHR₉, NR₈R₉, C₁-C₁₂alkyl, C₂-C₁₂alkenyl, C₂-C₁₂alkynyl, C₃-C₁₂cycloalkyl, C₃-C₁₂cycloalkenyl, C₇-C₁₂aralkyl, C₂-C₁₁heteroaralkyl, C₆-C₁₀aryl or C₁-C₉heteroaryl,

R₆, R₇ and R₈ are each independently of the others C₁-C₁₂alkyl, C₂-C₁₂alkenyl, C₂-C₁₂alkynyl, C₃-C₁₂cycloalkyl, C₃-C₁₂cycloalkenyl, C₇-C₁₂aralkyl, C₂-C₁₁heteroaralkyl, C₆-C₁₀aryl or C₁-C₉heteroaryl,

it being possible for R_1 and R_2 , R_1 and R_6 , R_2 and R_3 , R_2 and R_7 , R_3 and R_6 , R_4 and R_5 , R_4 and R_6 , R_4 and R_7 and/or R_7 and R_8 in pairs to be so linked to one another that 1, 2, 3 or 4 carbocyclic or N-, O- and/or S-heterocyclic rings are formed, it being possible for any such ring, independently of any other(s), where applicable to be fused to an aromatic or heteroaromatic ring and/or for a plurality of N-, O- and/or S-heterocyclic rings to be fused to one another, and it being possible for any N in an N-heterocyclic ring to be unsubstituted or substituted by R_9 ; it being possible for any alkyl, alkenyl, alkynyl (in each case, where applicable, as part of non-aromatic rings), cycloalkyl or cycloalkenyl and, where applicable, a plurality of alkyl, alkenyl, alkynyl, cycloalkyl and/or cycloalkenyl groups independently of one another to be unsubstituted or mono- or poly-substituted by R_{10} ; and it being possible for any aryl, heteroaryl or aralkyl or, where applicable, a plurality of aryl, heteroaryl and/or aralkyl groups independently of one another to be unsubstituted or mono- or poly-substituted by R_{11} ;

R_9 ~~being is~~ H, R_7 , COR_7 , $COOR_7$, $CONH_2$, $CONHR_7$ or $CONR_7R_8$;

R_{10} ~~being is~~ halogen, OH, NH_2 , NHR_{12} , $NR_{12}R_{13}$, $NHNH_2$, $NHNHR_{12}$, $NHNR_{12}R_{13}$, $NR_{14}NH_2$, $NR_{14}NHR_{12}$, $NR_{14}NR_{12}R_{13}$, $NHOH$, $NHOR_{12}$, $NR_{14}OH$, $NR_{14}OR_{12}$, $O-R_{12}$, $O-CO-R_{12}$, $S-R_{12}$, $CO-R_{12}$, oxo, thiono, $=N-R_{12}$, $=N-OH$, $=N-O^+$, $=N-OR_{12}$, $=N-NH_2$, $=N-NHR_{12}$, $=N-NR_{12}R_{13}$, CN , $COOH$, $CONH_2$, $COOR_{12}$, $CONHR_{12}$, $CONR_{12}R_{13}$, SO_2NH_2 , SO_2NHR_{12} , $SO_2NR_{12}R_{13}$, SO_2R_{12} , SO_3R_{12} or $PO(OR_{12})(OR_{13})$;

R_{11} ~~being is~~ halogen, NO_2 , CN , NH_2 , SH , OH , CHO , R_{15} , OR_{15} , SR_{15} , $C(R_{16})=CR_{17}R_{18}$, $O-CO-R_{19}$ and by NHR_{19} , $NR_{19}R_{20}$, $CONH_2$, $CONHR_{19}$, $CONR_{19}R_{20}$, SO_2NH_2 , SO_2NHR_{19} , $SO_2NR_{19}R_{20}$, SO_2R_{19} , $COOH$, $COOR_{19}$, $OCOOR_{19}$, $NHCOR_{19}$, $NR_{19}COR_{21}$, $NHCOOR_{19}$, $NR_{19}COOR_{21}$, $P(=O)OR_{19}OR_{21}$, $P(=O)R_{19}OR_{21}$, $P(=O)R_{19}R_{21}$, or being C_1-C_{12} alkyl, C_3-C_{12} cycloalkyl, C_2-C_{12} alkenyl, C_3-C_{12} cycloalkenyl, C_1-C_{12} alkylthio, C_3-C_{12} cycloalkylthio, C_2-C_{12} alkenylthio, C_3-C_{12} cycloalkenylthio, C_1-C_{12} alkoxy, C_3-C_{12} cycloalkoxy, C_2-C_{12} alkenyloxy or C_3-C_{12} cycloalkenyloxy each unsubstituted or substituted by one or more, where applicable identical or different, R_{10} radicals;

R_{12} , R_{13} and R_{14} ~~being are~~ each independently of the others C_1-C_{12} alkyl, C_3-C_{12} cycloalkyl, C_2-C_{12} alkenyl, C_3-C_{12} cycloalkenyl, C_6-C_{14} aryl, C_1-C_{12} heteroaryl, C_7-C_{16} aralkyl or C_2-C_{16} heteroaralkyl; or

R₁₂ and R₁₃, together with the common N, ~~being~~are pyrrolidine, piperidine, piperazine or morpholine each unsubstituted or mono- to tetra-substituted by C₁-C₄alkyl;

R₁₅ ~~being~~is C₆-C₁₄aryl, C₁-C₁₂heteroaryl, C₇-C₁₈aralkyl or C₂-C₁₆heteroaralkyl each unsubstituted or substituted by one or more, where applicable identical or different, R₂₂ radicals;

R₁₆ ~~being~~is hydrogen, cyano, halogen, nitro, or being C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₂-C₁₂alkenyl or C₃-C₁₂cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy, C₁-C₁₂alkoxy or C₃-C₁₂cycloalkoxy radicals, or being C₆-C₁₄aryl, C₁-C₁₂heteroaryl, C₇-C₁₈aralkyl or C₂-C₁₆heteroaralkyl each unsubstituted or substituted by one or more, where applicable identical or different, R₁₀ and/or nitro radicals;

R₁₇ and R₁₈ ~~being~~is each independently of the other NR₁₉R₂₀, CN, CONH₂, CONHR₁₉, CONR₁₉R₂₀ or COOR₂₀;

R₁₉, R₂₀ and R₂₁ ~~being~~are each independently of the others R₁₅, or being C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₂-C₁₂alkenyl or C₃-C₁₂cycloalkenyl each unsubstituted or substituted by one or more, where applicable identical or different, halogen, hydroxy, C₁-C₁₂alkoxy or C₃-C₁₂cycloalkoxy radicals; ~~or~~
or.

R₁₉ and R₂₀, together with the common N, ~~being~~ pyrrolidine, piperidine, piperazine or morpholine each unsubstituted or mono- to tetra-substituted by C₁-C₄alkyl; or being carbazole, phenoxazine or phenothiazine each unsubstituted or substituted by one or more, where applicable identical or different, R₂₂ radicals; and

R₂₂ ~~being~~is halogen, NO₂, SO₂NH₂, SO₂NHR₁₂, SO₂NR₁₂R₁₃, or being C₁-C₁₂alkyl, C₃-C₁₂cycloalkyl, C₁-C₁₂alkylthio, C₃-C₁₂cycloalkylthio, C₁-C₁₂alkoxy or C₃-C₁₂cycloalkoxy each substituted by one or more, where applicable identical or different, R₁₀ radicals; wherein

when R₇, R₈, R₉, R₁₀, R₁₁, R₁₂, R₁₃, R₁₄, R₁₅, R₁₆, R₁₇, R₁₈, R₁₉, R₂₀, R₂₁ and/or R₂₂ are present more than once, each of them is independent of all others; and/or

two identical or different entities of formula (Ia), (Ib) or (Ic) may, ~~if desired,~~ have a common partial structure or be joined by a direct bond; and, when M in two such joined entities is the same, it may also be a single atom.

2. **(currently amended)** An optical recording medium according to claim 1, wherein M is Al, Au, Bi, Cd, Ce, Co, Cu, Cr, Hf, In, Ir, Mn, Mo, Nb, Ni, Fe, Os, Pb, Pd, Pt, Re, Rh, Ru, Si, Sn, Ta, Ti, V, W, Zn or Zr, ~~preferably Co, Cu or Ni, especially Co(II), Cu(II) or Ni(II).~~

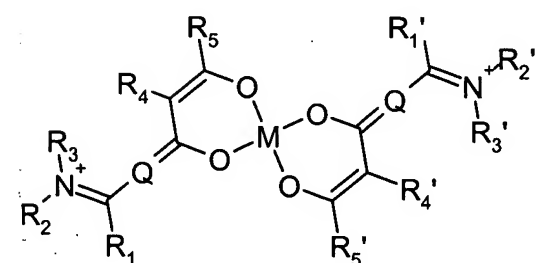
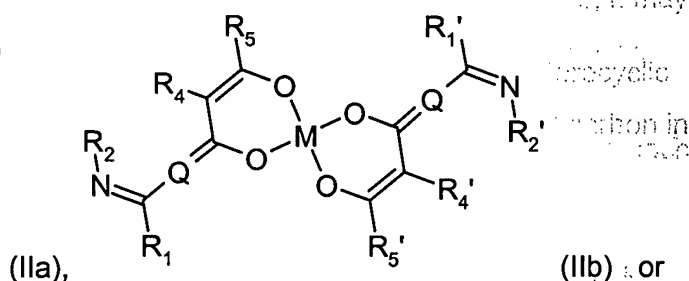
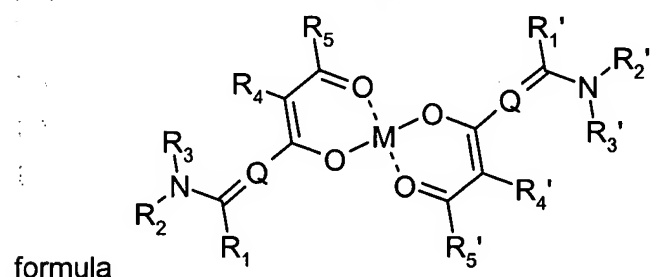
3. **(currently amended)** An optical recording medium according to ~~either claim 1 or claim 2,~~ wherein, when R₁ and R₆ together and/or R₄ and R₅ together form a carbocyclic or heterocyclic ring, that ring is neither an aromatic ring nor a pyrone.

4. **(original)** An optical recording medium according to claim 3, wherein a carbocyclic or heterocyclic ring which may be formed by R₁ and R₆ and/or by R₄ and R₅ has at least one fully saturated carbon in the ring.

5. **(currently amended)** An optical recording medium according to claim 1, ~~2, 3 or 4,~~ wherein Q is C--H or N, R₉ is R₇, and/or where applicable a carbocyclic or N-, O- and/or S-heterocyclic non-aromatic ring ~~has having~~ from 3 to 12 members, ~~preferably 5 or 6 members.~~

6. **(currently amended)** An optical recording medium according to claim 1, ~~2, 3, 4 or 5,~~ wherein R₄ and R₅ together form a 5- or 6-membered ring.

7. **(currently amended)** An optical recording medium according to claim 1 ~~comprising a substrate, a recording layer and optionally a reflecting layer,~~ wherein the recording layer comprises a compound of



(IIc), or a stereoisomer, oligomer or tautomer thereof,

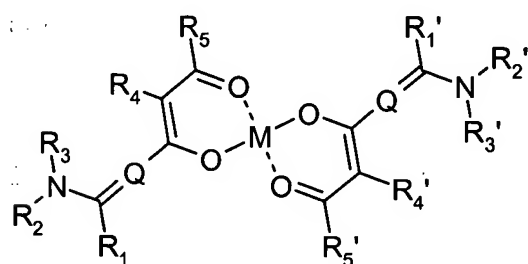
wherein M is aluminium or a transition metal and R_1' independently of R_1 is as defined for R_1 , R_2' independently of R_2 is as defined for R_2 , R_3' independently of R_3 is as defined for R_3 , R_4' independently of R_4 is as defined for R_4 , and R_5' independently of R_5 is as defined for R_5 , it being possible for R_1' and R_1 , for R_2' and R_2 , for R_3' and R_3 , for R_4' and R_4 , and for R_5' and R_5 in each case to be identical or different and it being possible, where appropriate, for a radical R_1' , R_2' , R_3' , R_4' or R_5' to be bonded to a radical R_1 , R_2 , R_3 , R_4 or R_5 by a direct bond, ~~and Q, R_1 , R_2 , R_3 , R_4 and R_5 being as defined in claim 4.~~

8. **(currently amended)** An optical recording medium according to claim 1, ~~2, 3, 4, 5, 6 or 7~~, wherein the recording layer comprises at least two compounds of formula (Ia), (Ib) or (Ic), at least two compounds of formula (IIa), (IIb) or (IIc), or at least one compound of formula (Ia), (Ib), (Ic), (IIa), (IIb) or (IIc) wherein M is aluminium or a transition metal together with a compound of formula (Ia) wherein M is hydrogen.

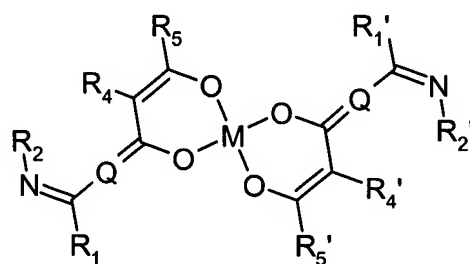
9. **(currently amended)** A method of recording or playing back data, wherein the data on an optical recording medium according to claim 1, ~~2, 3, 4, 5, 6, 7 or 8~~ are recorded or played back at a wavelength of from 300 to 500 nm.

10. **(currently amended)** A compound of formula (Ia), (Ib) or (Ic) according to claim 1, ~~2, 3, 4, 5 or 6~~, wherein M is a transition metal, with the proviso that, when R_1 and R_6 together and/or R_4 and R_5 together form a carbocyclic or heterocyclic ring, that carbocyclic or heterocyclic ring is neither an aromatic ring nor a pyrone.

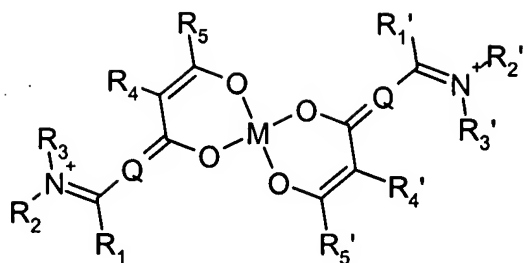
11. **(original)** A chelate of formula



(IIa),



(IIb) or



(IIc), or a stereoisomer, oligomer or tautomer thereof,

wherein M is aluminium or a transition metal and R_1' independently of R_1 is as defined for R_1 , R_2' independently of R_2 is as defined for R_2 , R_3' independently of R_3 is as defined for R_3 , R_4' independently of R_4 is as defined for R_4 , and R_5' independently of R_5 is as defined for R_5 , it being possible for R_1' and R_1 , for R_2' and R_2 , for R_3' and R_3 , for R_4' and R_4 , and for R_5' and R_5 in each case to be identical or different and it being possible, where appropriate, for a radical R_1' , R_2' , R_3' , R_4' or R_5' to be bonded to a radical R_1 , R_2 , R_3 , R_4 or R_5 by a direct bond, and Q, R_1 , R_2 , R_3 , R_4 and R_5 being as defined in claim 1.

12.(original) A process for the preparation of a chelate of formula (IIa), (IIb) or (IIc) according to claim 11, which comprises

- deprotonating a compound of formula (Ia), (Ib) or (Ic) according to claim 1, 2, 5 or 6 or a compound of formula (IIa) according to claim 7, wherein M is hydrogen, in a hydrophilic, O-containing liquid using a base;
- adding a non-inert salt of aluminium or a transition metal M;
- optionally adding additional ligands in a from 1.0x to 1.5x stoichiometric amount;
- optionally adding another liquid which is miscible with the O-containing liquid so that the chelate of formula (IIa), (IIb) or (IIc) precipitates out; and
- isolating the chelate of formula (IIa), (IIb) or (IIc).

13.(cancelled)

14.(new) An optical recording medium according to claim 1, wherein M is a transition metal.

15.(new) An optical recording medium according to claim 2, wherein M is Co, Cu or Ni.